

In the Claims

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1-5. (Canceled)

6. (Currently Amended): A wafer carrier for holding wafers in a substantially horizontal arrangement, the wafers having a lower surface, the carrier having an open front, a backside, a top portion, a bottom portion, a left side and a right side, the carrier further comprising:

a pair of wafer support columns extending from the top portion to the bottom portion, one support column located at the right side and an opposite one located at the left side, each wafer support column comprised of a plurality of vertically arranged elongate shelves, each shelf of each support column having an opposite shelf on the opposite column, each shelf having the lengthwise dimension extending in a direction from the front to the backside and comprised of at least two upwardly extending elongate beads oriented towards said shelf's respective opposite shelf inwardly with respect to the wafers and transversely with respect to the plurality of vertically arranged shelves for providing minimal contact with the lower surface of a wafer at each bead, each shelf and its respective opposite shelf further having an insertion level and a seating level for a wafer, whereby a wafer may be inserted into the carrier through the open front at an insertion level and lowered to sit on the upwardly extending beads at the seating level.

7. (Currently Amended): A wafer carrier for holding wafers in a substantially horizontal arrangement, the wafers having a lower surface, the carrier having an open front, a backside, a top portion, a bottom portion, a left side and a right side, the carrier further comprising:

a pair of wafer support columns extending from the top portion to the bottom portion, one support column located at the right side and an opposite one located at the left side, each wafer support column comprised of a plurality of vertically arranged elongate shelves, each shelf of each support column having an opposite shelf on the opposite column, each shelf having its lengthwise dimension oriented from the front to the backside and comprised of at least two upwardly extending elongate beads oriented transversely with respect to lengthwise dimension of the plurality of vertically arranged shelves for providing minimal contact with the lower surface of a wafer at each bead, each shelf and its respective opposite shelf further having an insertion level and a seating level for a wafer, whereby a wafer may be inserted into the carrier through the open front at an insertion level and lowered to sit on the upwardly extending beads at the seating level. ~~The wafer carrier of claim 6, , and wherein each shelf is further comprised of a forward stop positioned at the seating level at least partially forward and inwardly of the upwardly extending beads thereby interfering with the forward movement of a wafer seated in said shelf, each shelf further having a rearward stop positioned rearwardly and inwardly of the upwardly extending beads thereby interfering with the rearward movement of a wafer in said shelf, said forward stop not extending into the insertion level whereby the wafer may be inserted and removed at the insertion level without interference with said forward stop.~~

8. (Currently Amended): A wafer carrier for holding wafers in a substantially horizontal arrangement, the wafers having a lower surface, the carrier having an open front, a backside, a top portion, a bottom portion, a left side and a right side, the carrier further comprising:
a pair of wafer support columns extending from the top portion to the bottom portion, one support column located at the right side and an opposite one located at the left side, each wafer support column comprised of a plurality of vertically arranged elongate shelves, each shelf of each support column having an opposite shelf on the opposite column, each shelf oriented lengthwise from the front to the backside and comprised of at least two upwardly extending elongate beads oriented transversely with respect to lengthwise orientation of the plurality of vertically arranged shelves for providing minimal contact with the lower surface of a wafer at each bead, each shelf and its respective opposite shelf further having an insertion level and a seating level for a wafer, whereby a wafer may be inserted into the carrier through the open front

at an insertion level and lowered to sit on the upwardly extending beads at the seating level. The, the wafer carrier of claim 6 further comprising a molded outer transparent shell extending around and enclosing the left side, the backside and the right side and further comprising a door for closing the open front.

9. (Previously Presented): The wafer carrier of claim 8 wherein each column of wafer support shelves are formed separately from the outer shell and wherein the columns are attached to the outer shell.

10. (Previously Presented): The wafer carrier of claim 8 wherein each column of shelves is separately formed from the outer shell and each column is formed of a static dissipative material, wherein the carrier further comprises a plurality of parts formed of static dissipative plastic material, wherein said parts are conductively connected by way of static dissipative plastic.

11. (Previously Presented): The wafer carrier of claim 10 wherein the static dissipative plastic is configured as at least one jumper extending from one part to another part.

12. (Previously Presented): The wafer carrier of claim 10 wherein said parts include a robotic flange, a side handle, and a bottom base portion having an equipment interface said bottom base portion separately formed from the outer shell and formed of a static dissipative plastic material, said robotic flange separately formed from the outer shell and formed of a static dissipative plastic material

13. (Previously Presented): The wafer carrier of claim 12 wherein the bottom base portion comprises a kinematic coupling.

14. (Previously Presented): A wafer carrier for holding wafers, the wafer carrier having an open front, an open interior, a closed backside, a top portion, a bottom base portion, a closed left side, a closed right side, a pair of wafer supports positioned in the open interior, a pair of side

wall handles and a robotic flange at the top portion the carrier, the robotic flange, the side wall handles, the wafer supports, and the bottom base portion all formed of static dissipative plastic and conductively connected together.

15. (Previously Presented): The wafer carrier of claim 14 further comprising a conductive plastic jumper.

16. (Previously Presented): The wafer carrier of claim 15 wherein the conductive plastic jumper is fixed in the interior of the wafer carrier.

17. (Previously Presented): The wafer carrier of claim 15 wherein the conductive plastic jumper is connected to one of the side wall handles.

18. (Previously Presented): A wafer carrier for holding wafers, the wafer carrier having an open front, an open interior, a nonconductive plastic shell, a top, a bottom base portion, a closed left side, a closed right side, a pair of wafer supports positioned in the open interior, a pair of side wall handles attached to the nonconductive plastic shell, a robotic flange at the top, the robotic flange, the side wall handles, the wafer supports, and the bottom base portion all formed of static dissipative plastic and conductively connected together.

19. (Previously Presented): The wafer carrier of claim 18 further comprising a kinematic coupling on the bottom base portion.

20. (Previously Presented): The wafer carrier of claim 18 further comprising a conductive plastic jumper providing a conductive connection.

21. (Previously Presented): The wafer carrier of claim 18 wherein the plastic shell is transparent.

Please add new claims 22 as follows:

22. (Currently Amended) A wafer carrier for holding a plurality of wafers in an axially aligned stacked arrangement, the carrier comprising:

a container portion having a left side, a right side, an open front and an open interior for receiving and holding the wafers, the container portion having a plurality of shelves at the right side in the interior and a plurality of opposite shelves at the left side in the interior, each shelf on the left side having a pair of upwardly extending elongate protrusions oriented towards the right side for supporting the wafers, each shelf on the right side having a pair of upwardly extending elongate protrusions oriented towards the left side for supporting the wafers ~~at least one of the protrusions on each shelf comprising an elongate bead oriented inwardly~~; and

a door for closing the open front.